

A01449

### REMARKS

Claims 1, 2, 4, and 6-24 are pending in the present Application, with claims 4 and 6-9 being withdrawn. Claim 1 has been amended, and no additional claims have been canceled or added, leaving claims 1-2 and 10-24 for consideration upon entry of the present Amendment.

Claim 1 has been amended to incorporate the limitation that the hydrophobically modified polyethoxylated urethane thickener comprises at least one urethane linkage formed from a diisocyanate comprising at least one of the diisocyanates listed at the end of the first paragraph on page 7 of the specification as originally filed. Support for this amendment can be found in the paragraph spanning pages 6-7 of the specification as originally filed.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

#### Rejections of Claims 1-2

Claims 1-2 have been rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Ma et al., ACS Symposium Series, 765, 2000, 254-270 (hereinafter "Ma") in view of Anderson et al., Polymeric Materials Science and Engineering, 79, 1998, 411-412 (hereinafter "Anderson"). Claims 1-2 have also been rejected under 35 U.S.C. § 103(a), as allegedly anticipated over U.S. Patent No. 5,376,709 to Lau et al. (hereinafter "Lau"). Claims 1-2 have further been rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 5,137,571 to Eisenhart et al. (hereinafter "Eisenhart") in view of Anerson. Applicants respectfully traverse these rejections.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a case of *prima facie* obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). It has long been recognized that establishing a *prima facie* obviousness requires that all elements of the invention be disclosed in the prior art. *In re Wilson*, 165

A01449

U.S.P.Q. 494, 496 (C.C.P.A. 1970). Applicants assert that the cited art, whether taken singly or in combination, fails to teach all of the elements of independent claim 1.

Claim 1 has been amended to include the limitation that the hydrophobically modified polyethoxylated urethane thickener comprises "at least one urethane linkage formed from a diisocyanate comprising 1,4-tetramethylene diisocyanate, 1,6-hexamethylene diisocyanate, 1,10-decamethylene diisocyanate, 2,2,4-trimethyl-1,6-diisocyanatohexane, 1,4-cyclohexylene diisocyanate, 4,4'-methylenebis(isocyanatocyclohexane), 1-isocyanato-3-isocyanatomethyl-3,5,5-trimethylcyclohexane, 2,6- and 2,4-tolylene diisocyanate, m-phenylene diisocyanate, p-phenylene diisocyanate, xylene diisocyanate, 4-chloro-1,3-phenylene diisocyanate, 4,4'-biphenylene diisocyanate, 4,4'-methylene diphenylisocyanate, 1,5-naphthylene diisocyanate, 1,5-tetrahydronaphthylene diisocyanate, and a combination comprising at least one of the foregoing diisocyanates."

Ma fails to teach or suggest a hydrophobically modified polyethoxylated urethane thickener comprising a urethane linkage formed from any of the diisocyanates listed in claim 1 of the present application. In contrast, Ma discloses complexation of beta-cyclodextrin with various hydrophobically modified polyethoxylated urethanes formed from various diisocyanates listed on page 261 such as the diisocyanate of the R" structure shown at the bottom of the page (i.e., methylene bis(4-cyclohexyl isocyanate) (H<sub>12</sub>MDI)) or coupler in forming hydrophobically modified polyethoxylated urethane thickeners with hexane diisocyanate (see, e.g., 1<sup>st</sup> paragraph). Anderson in no way suggests using any of the diisocyanates listed in claim 1 of the present application as the diisocyanate coupler.

Lau describes using methyl-beta-cyclodextrin to reversibly complex hydrophobic moieties on hydrophobically-modified thickeners (see, e.g., column 1, lines 9-12). The only specific thickener disclosed in Lau appears to be ACRYSOL®RM-8 solid grade hydrophobically modified polyurethane thickener (see Example 1, column 4, lines 64-65). This thickener is based on H<sub>12</sub>MDI. As such, Lau fails to teach or suggest thickeners

A01449

comprising urethane linkages formed from any of the diisocyanates listed in claim 1 of the present application.

Eisenhart discloses complexation of cyclodextrin-containing compounds with thickeners such as hydrophobically modified polyethoxylated urethanes (see e.g., claim 1). Eisenhart specifically mentions QR-708 hydrophobically modified urethane thickener (see Example 1, column 7, line 16), available from Rohm & Haas Company. QR-708, like the thickener disclosed in Lau, is based on H<sub>12</sub>MDI. The Examiner also indicates that Table 18 of Eisenhart gives ACRY SOL™ RM-5 as a thickener (see column 15, line 8). However, ACRY SOL™ RM-5 is not a hydrophobically modified urethane thickener but is instead a hydrophobically modified alkali soluble emulsion type thickener based upon acrylic monomers. Eisenhart thus does not teach or suggest hydrophobically modified urethane thickeners based on any of the diisocyanates listed in claim 1 of the present application.

Based on the foregoing, the Examiner has failed to establish a *prima facie* case of obviousness with respect to independent claims 1 and 2 depending therefrom. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejections of claims 1-2.

#### Rejections of Claims 10-28

Claims 10-24 have been rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Ma in view of Anderson. Further, claims 10-11 and 13-20 have been rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Lau in view of Anderson. Finally, claims 10-24 have been rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Eisenhart in view of Anderson.

As basis for the rejections, the Examiner cites various references directed to the use of a cyclodextrin and a hydrophobically modified polyurethane thickener. Specifically, the Examiner appears to believe that the cited references disclose a hydrophobically modified polyurethane thickener having the solids content mentioned in claims 10 and 13 of the present application. See, e.g., the Office Action, page 5, last sentence and page 7, line 8. However, independent claims 10 and 13 are directed to a composition comprising a hydrophobically modified aminoplast-ether copolymer as a thickener. Thus, the solids

SEP 06 2007

A01449

content provided in claims 10 and 13 is in reference to this aminoplast-ether copolymer than than to a polyurethane thickener, as mistakenly believed by the Examiner. No references to an aminoplast-ether thickener can be found in Ma, Anderson, Lau, or Eisenhart.

In view of the foregoing, the Examiner has failed to establish a *prima facie* case of obviousness with respect to independent claims 10 and 13 and the claims depending therefrom. Applicants therefore respectfully request withdrawal of the 35 U.S.C. § 103(a) rejections of claims 10-24.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the objection(s) and rejection(s) and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 18-1850.

Respectfully submitted,

CANTOR COLBURN LLP

By /Michelle L. Henderson/  
Michelle L. Henderson  
Reg. No. 24,654  
Leah M. Reimer  
Reg. No. 39,341

Date: September 6, 2007  
Customer No.: 21898  
Telephone (860) 286-2929  
Facsimile (860) 286-0115